IN THE CLAIMS:

Please amend the claims to read as follows:

1. (Original) A method of determining value-at-risk, comprising the steps of:

electronically receiving financial market transaction data over an electronic network;

electronically storing in a computer-readable medium said received financial market transaction data;

constructing an inhomogeneous time series z that represents said received financial market transaction data;

constructing an exponential moving average operator;

constructing an iterated exponential moving average operator based on said exponential moving average operator;

constructing a time-translation-invariant, causal operator $\Omega[z]$ that is a convolution operator with kernel ω and that is based on said iterated exponential moving average operator;

electronically calculating values of one or more predictive factors relating to said time series z, wherein said one or more predictive factors are defined in terms of said operator $\Omega[z]$;

electronically storing in a computer readable medium said calculated values of one or more predictive factors; and

electronically calculating value-at-risk from said calculated values.

2. (Original) The method of claim 1, wherein said operator $\Omega[z]$ has the form:

$$\Omega[z](t) = \int_{-\infty}^{t} dt' \omega(t-t') z(t')$$

$$= \int_0^\infty dt'\omega(t')z(t-t').$$

3. (Currently amended) The method of claim 1, wherein said exponential moving average operator EMA[τ; z] has the form:

$EMA[\tau; z] = \mu\, EMA[\tau; z](t_{n-1}) + (\nu - \mu)\, z_{n-1} + (1 - \nu)\, z_n$

~~[[with $\alpha = \frac{\tau}{t_n - t_{n-1}}$]]~~ where $\alpha = \frac{t_n - t_{n-1}}{\tau}$

$\mu = e^{-\alpha}$, and

~~where~~ ν is a value that depends on a chosen interpolation ~~scheme~~ procedure.

4. (Original) The method of claim 1, wherein said operator $\Omega[z]$ is a differential operator $\Delta[\tau]$ that has the form:

$\Delta[\tau] = \gamma(EMA[\alpha\tau, 1] + EMA[\alpha\tau, 2] - 2\, EMA[\alpha\beta\tau, 4])$, where γ is fixed so that the integral of the kernel of the differential operator from the origin to the first zero is 1; α is fixed by a normalization condition that requires $\Delta[\tau; c]=0$ for a constant c; and β is chosen in order to get a short tail for the kernel of the differential operator $\Delta[\tau]$.

5. (Original) The method of claim 4 wherein said one or more predictive factors comprises a return of the form $r[\tau]=\Delta[\tau; x]$, where x represents a logarithmic price.

6. (Original) The method of claim 1 wherein said one or more predictive factors comprises a momentum of the form x-EMA[τ; x], where x represents a logarithmic price.

7. (Original) The method of claim 1 wherein said one or more predictive factors comprises a volatility.

8. (Original) The method of claim 7 wherein said volatility is of the form:

$\text{Volatility}[\tau,\tau', p;z]=\text{MNorm}\,[\frac{\tau}{2},p;\Delta[\tau';z]]$, where

$\text{MNorm}[\tau,p;z]=\text{MA}[\tau;|z|^p]^{1/p}$, and

$$MA[\tau,n]=\frac{1}{n}\sum_{k=1}^{n}EMA[\tau',k],\text{ with }\tau'=\frac{2\tau}{n+1},$$

and where p satisfies $0<p\leq 2$, and τ' is a time horizon of a return $r[\tau]=\Delta[\tau; x]$, where x represents a logarithmic price.

9. (New) The method of claim 1, wherein said exponential moving average operator $EMA[\tau; z]$ has the form:

$$EMA[\tau; z] = \mu\, EMA[\tau; z](t_{n-1}) + (\nu - \mu)\, z_{n-1} + (1-\nu)\, z_n$$

where $\alpha=\frac{t_n - t_{n-1}}{\tau}$

$\mu = e^{-\alpha}$, and

$\nu=\frac{1-\mu}{\alpha}$, corresponding to a linear interpolation procedure.

10. (New) The method of claim 1, wherein said exponential moving average operator $EMA[\tau; z]$ has the form:

$$EMA[\tau; z] = \mu\, EMA[\tau; z](t_{n-1}) + (\nu - \mu)\, z_{n-1} + (1-\nu)\, z_n$$

where $\alpha=\frac{t_n - t_{n-1}}{\tau}$

$\mu = e^{-\alpha}$, and

$\nu = 1$, corresponding to a previous point interpolation procedure.

11. (New) The method of claim 1, wherein said exponential moving average operator $EMA[\tau; z]$ has the form:

$$EMA[\tau; z] = \mu\, EMA[\tau; z](t_{n-1}) + (\nu - \mu)\, z_{n-1} + (1-\nu)\, z_n$$

where $\alpha=\frac{t_n - t_{n-1}}{\tau}$

$\mu = e^{-\alpha}$, and

$\nu = \mu$, corresponding to a next point interpolation procedure.